Butt Out: Homelessness & Smoking Cessation

Tobacco use, cigarette smoking in particular, is the leading cause of preventable morbidity and mortality in the United States, and tobacco use is much higher among children and adults of lower socioeconomic status, resulting in medically underserved individuals suffering disproportionately high rates of tobacco-related morbidity and mortality. While many of us take visits to the doctor and screening for potential health problems for granted, access to health care services such as getting help to quit smoking is unequal, with those uninsured or underinsured less likely to receive this type of service.

In 2008, the Centers for Disease Control and Prevention reported that an estimated 46 million people—or 20.6 percent of all adults aged 18 years and older—in the United States smoke cigarettes. Cigarette smoking and exposure to secondhand smoke account for about 443,000 deaths—or one of every five deaths—in the U.S. annually. Although it is difficult to determine the level of cigarette use in the homeless population, a study conducted in 2008–2009 estimates the prevalence of smoking among homeless people at 73 percent.

Persons who have mental disorders are about twice as likely to smoke as others do. Although they comprise an estimated 28 percent of the population, persons who are mentally ill consume about 44 percent of all cigarettes smoked. Smoking rates are particularly high (75–95 percent) among people with schizophrenia. Furthermore, smoking rates for individuals with severe mental illness, who are over-represented among the homeless population, have not been declining as have rates in the general population, which have declined since the 1960s.

Persons with lower educational attainment generally have higher rates of smoking and less understanding about the health effects of smoking. There may be differences in how they receive smoking-related health messages, and although they are interested in quitting, they are less likely to quit.

HEALTH RISKS
According to the Surgeon General’s report, smoking can cause lung and other cancers, coronary heart disease, stroke, chronic respiratory disease, and other diseases. While information about these risks is widely available, many are less aware of the risk for development and progression of periodontal—or gum—disease. Periodontal diseases, including gingivitis and periodontitis, are serious chronic bacterial infections affecting the gums and bone supporting the teeth. Untreated, these conditions can eventually lead to pain, tooth loss, and other health problems.

Judi L. Allen, DMD, clinical director at Cincinnati’s McMicken Dental Clinic, reports that almost all of her patients smoke cigarettes and as a result, approximately 80 percent experience some level of periodontal disease. Research shows that smokers lose more teeth than nonsmokers do. The CDC reports that among people over age 65, only about 20 percent who have never smoked are toothless, while 41.3 percent of daily smokers are toothless. “Smokers don’t heal as well after periodontal treatment—such as extractions—as former smokers or nonsmokers do,” adds Allen, “and diabetic patients who smoke have poorer outcomes than do nonsmoking diabetics. Type 1 diabetic patients should always be urged to quit smoking as part of the management and prevention of periodontal disease.”

HIGH-RISK SMOKING BEHAVIOR
Due to low income, homeless individuals often use tobacco in ways that potentiate the hazards associated with cigarette smoking. A study published in Cancer Nursing evaluated the prevalence of high-risk smoking practices in a Los Angeles homeless population, finding these most common practices:

- Sharing cigarettes (86 percent)
- Smoking cigarettes remade from discarded cigarette butts and filters (71 percent)
- Smoking cigarettes remade by others (63 percent)
- Smoking discarded cigarette butts (63 percent)
- Blocking filter vents (24 percent)
- Using things other than tobacco, such as discarded cigarette filters and drugs, in remaking cigarettes (22 percent)
- Smoking discarded cigarette filters (19 percent)

These practices increase the likelihood of ingesting infectious agents and toxins trapped in filters and tobacco remains.

WHY ADDRESS THIS ISSUE?
Although the public health community is widely aware that cigarette use kills one in two longtime smokers, homeless services workers often express...
Nicotine changes heart rate, blood pressure & breathing patterns; carbon monoxide is absorbed from the tobacco in place of oxygen in the bloodstream. Nicotine’s “kick” is caused by a discharge of epinephrine from the adrenal cortex, stimulating the central nervous system & endocrine glands. Babies exposed to nicotine may be at higher risk for sudden infant death syndrome (SIDS). Children exposed to nicotine may be at higher risk for illnesses such as asthma; mood, memory & appetite may also be affected. Withdrawal from nicotine may result in restlessness, irritability, cognitive & attention deficits, cravings, appetite changes, sleep disturbances, depression & other uncomfortable feelings.

Source: Substance Abuse & Mental Health Services Administration, 2009

Table 1. Nicotine Quick Facts

- A component of tobacco, nicotine is the primary reason that tobacco is addictive.
- Nicotine changes heart rate, blood pressure & breathing patterns; carbon monoxide is absorbed from the tobacco in place of oxygen in the bloodstream.
- Nicotine’s “kick” is caused by a discharge of epinephrine from the adrenal cortex, stimulating the central nervous system & endocrine glands.
- Babies exposed to nicotine may be at higher risk for sudden infant death syndrome (SIDS).
- Children exposed to nicotine may be at higher risk for illnesses such as asthma; mood, memory & appetite may also be affected.
- Withdrawal from nicotine may result in restlessness, irritability, cognitive & attention deficits, cravings, appetite changes, sleep disturbances, depression & other uncomfortable feelings.

Source: Substance Abuse & Mental Health Services Administration, 2009.

Table 2. Keys to Successful Addiction Treatment

- Make treatment readily available to those who need it.
- Engage individuals in treatment for an adequate length of time.
- Remember that recovery is a long-term effort, usually taking several treatment episodes.
- Take into consideration other addictions & physical or mental health problems in the treatment plan.
- Tailor treatment programs to the individual’s needs & characteristics.
- Reassess treatment periodically and adjust as needed.

Source: CDC, 2002. What can we expect from substance abuse treatment?

Limited concern about smoking, with more urgent medical, psychiatric, and social concerns overshadowing risks associated with tobacco use. "Many agencies fail to recognize the seriousness of nicotine addiction and its health impact, and neglect to offer smoking cessation services," says Mental Health/Addiction Specialist Margaret Alba-Berzinski, MSW, CATC, with the Family Health Centers of San Diego.

Homeless individuals are at particular risk of health consequences from smoking because their general health may already be compromised by poor nutrition, poor hygiene, and inadequate access to health care. Because homeless persons have high death rates due to treatable or preventable causes, smoking cessation has the potential to reduce morbidity and mortality significantly. Studies show that obstructive lung disease is more than twice as prevalent in homeless people than in the general population, and that the rates of death from cardiovascular, pulmonary, and other smoking-related causes are substantial.

**CHALLENGES & BARRIERS**

**Myths.** Homeless people don't want to quit smoking. Homeless smokers' level of interest in participating in a smoking cessation program, number of lifetime quit attempts, and methods used to quit smoking are found to be similar to those of nonhomeless smokers, so programs to increase motivation for cessation could be particularly beneficial to this population.

"It’s a myth that patients should not try to quit smoking while they are working to break other addictions," says Barry Zevin, MD, physician specialist and the lead in addiction medicine with the Tom Waddell Health Center in San Francisco. “It’s important to convey that with your help, the patient can successfully quit smoking, especially those who are alcohol dependent or polysubstance abusers. Once they quit smoking, they gain confidence and realize that they can master addiction. This can be the turning point in successfully treating other addictions. Research shows that addiction programs that incorporate smoking cessation have better success rates in helping patients break other addictions.”

Tobacco use is just a bad habit. Researchers make the case that tobacco dependence should be recognized as a chronic illness requiring effective treatments as long as the condition exists, and that given the chronic, relapsing nature of tobacco dependence, the combined pharmacotherapy and behavioral components should be covered by insurers in the same manner as the treatment of other long-term illnesses and conditions such as asthma, diabetes, and depression.

**Tobacco industry marketing practices.** The tobacco industry explicitly labels the homeless and seriously mentally ill as part of its “downscale” market, describing this demographic as being more “malleable” and “impressionable” to advertising. Marketing strategies include offering free samples to recruit new smokers and giving cigarettes to homeless shelters, soup kitchens, teen shelters, mental hospitals, and homeless service organizations; grantmaking to service providers; making charitable contributions using ticket revenues from arts and music festivals; and giving caps, blankets, and other merchandise—with the tobacco company’s logo—to homeless service organizations for their clients. These campaigns not only reach the target market, but they help position the tobacco firm as being “socially responsible” through its philanthropy.

Both mental illness and chemical dependency, which impair judgment, may make homeless individuals more susceptible to marketing that purports cigarettes help “cope with stress.” Although nicotine is often portrayed as a stress reducer, it is a stimulant not a suppressant, speeding up the heart, constricting blood vessels, and raising blood pressure.

**Transience.** One of the keys to successful substance abuse treatment is to engage the individual for an adequate length of time. It is difficult to provide long-term therapy such as smoking cessation to many homeless individuals due to their transience.

**Treatment cost.** Nicotine replacement therapy (NRT) can be expensive for health care for the homeless projects—about $35–50 for a two-week supply—but other agencies engaged in tobacco control may offer low-cost or free NRT for those unable to pay. “If you add up the costs for treating homeless patients with smoking-related disease,” says Zevin, “the cost of NRT yields substantial savings to the health care system, which bears the cost of heart attacks—and other tobacco-associated illnesses—and their related hospitalizations. Use this information to advocate for funding to help cover the cost of NRT.”

**PUTTING EVIDENCE INTO PRACTICE: BEHAVIORAL COUNSELING INTERVENTIONS**

There are certain techniques that clinicians may use to encourage smoking cessation. Most models employ formal patient education weekly that is directed toward those who are in the pre-contemplation and contemplation stages of change. There is a dose–response relationship between quit rates and the intensity of counseling (i.e., more or longer sessions improve quit rates), however, quit rates seem to plateau.
after 90 minutes of total counseling contact time. Helpful components of counseling include problem-solving guidance to help smokers develop a plan to quit and overcome common barriers to quitting, and the provision of social support as part of treatment. Complementary practices that improve cessation rates include motivational interviewing, assessing readiness to change, offering referrals, and using telephone quitlines.20

Many HCH projects take advantage of available resources to deliver effective, evidence-based interventions to homeless and other impoverished populations. From her base at the Harris County Hospital District in Houston, Health Educator Wilma Patrick, RN, goes to shelters to teach smoking cessation classes. “We initiated this program when shelters prohibited smoking onsite in 2005,” explains Patrick. She teaches clients about risks associated with smoking such as heart attack and stroke, the addictive nature of nicotine, and risks associated with secondhand smoke. The goal is to increase awareness of the dangers of smoking and stimulate self-reevaluation of smoking behavior.

“Once clients decide to quit,” Patrick continues, “they need help due to the highly addictive nature of nicotine.” Only 3–7 percent of smokers who try to quit on their own each year succeed. Quitting smoking often requires repeated attempts and the help of counseling and aids ranging from NRT to antidepressants, hypnotherapy, and acupuncture.13

Lung Health Program Manager Manta Gakhar, MPH, of the Respiratory Health Association of Metropolitan Chicago advises: “The goal is to ask each patient at every visit about their tobacco use. We use a brief treatment model based on the “5-A” behavioral counseling framework [Table 4], an evidence-based construct developed to help clinicians engage clients in smoking cessation discussion. Research shows that even brief intervention can be effective.”

The U.S. Preventive Services Task Force, which makes recommendations about preventive care services for patients without recognized signs or symptoms of the target condition, found convincing evidence that smoking cessation interventions, including brief behavioral counseling sessions (< 10 minutes) and pharmacotherapy delivered in primary care settings, are effective in increasing the proportion of smokers who successfully quit and remain abstinent for one year.19

“Our lung health educators use motivational interviewing techniques and help construct an individualized plan to quit tailored to the client,” Gakhar continues. “It’s important to help the client identify a support system and to recognize what triggers tobacco use. Once triggers are identified, the lung health educator can work with the client to identify and develop behavioral changes around this trigger. It’s also important to assess clients interest in using NRT—or other smoking cessation medications—and their readiness and willingness to change behavior.”

Health professionals’ role. Helping patients change behavior is a vital role for HCH clinicians, and change interventions are especially useful in addressing lifestyle modification for disease prevention, long-term disease management, and addictions. While “patient noncompliance” often focuses on patient failure, recognizing barriers to change, assessing patient readiness to change, and helping patients anticipate relapse can improve patient satisfaction and lower clinician frustration during the change process.19

ADDITIONAL NONPHARMACOLOGIC METHODS

Acupuncture. Internist and acupuncturist, Dotty Shaffer, MD, volunteers at the Cincinnati Health Network. Although not a panacea, “Acupuncture is effective for treating pain and especially helpful in treating substance abuse, including nicotine dependence,” says Shaffer. “Acupuncture treatments aim to balance the energy within the body, alleviate withdrawal symptoms, and aid in relaxation and detoxification.” At Shaffer’s bi-monthly acupuncture clinic, she treats the same conditions she does in her regular practice, and counsels patients on using supplements and proper nutrition. Because of a low no-show rate and positive results, she plans to recruit additional acupuncturists in order to increase access to these services.

Hair-thin acupuncture needles are superficially inserted into various points in the ears and body to assist with smoking cessation. Typical treatments last five to 30 minutes, with the patient being treated one or two times a week. In between treatments, small pellets may be taped to acupuncture points on the ear. When cigarette cravings hit, gently pressing on the pellets stimulates the points to calm the mind and reduce the desire to smoke.19

A study reported in the American Journal of Public Health examined the effect of acupuncture on smoking cessation. Researchers found that acupuncture and education, alone and in combination, significantly reduced smoking, and combined they showed a significantly greater effect, particularly in the population that is most addicted and at the greatest risk of developing smoking-related-diseases.19

Quitlines. Quitlines are telephone-based tobacco cessation services that include coaching and counseling, referrals, mailed materials, training to health care providers, Web-based services and, in some instances, discounted or free medications such as NRT. Due to their ability to reach and serve tobacco users regardless of location, quitlines have spread quickly. Every state, the District of Columbia, U.S. territories, and all ten Canadian provinces have access to public
quiltine services. 1-800-QUIT-NOW is the national portal number that routes respective callers to their state quiltine. Services vary by state, so clinicians are advised to call to learn what is available.

According to David Wetter, PhD, professor and chair of the Department of Health Disparities Research at M. D. Anderson Cancer Center, University of Texas: “Quitline-based treatment is highly effective, yet grossly underused by smokers with limited resources.”

Zevin finds quitlines valuable, noting “Since many homeless people now have cell phones, using state quitlines is very helpful for those trying to quit—and they can be more effective than group counseling.” HCH clients without cell phones may be eligible for SafeLink, a program offering free cell phones and airtime for income-eligible customers. Eligibility guidelines vary by state, but in general, individuals qualify if they participate in a public assistance program or they may qualify based on total household gross monthly income. Learn more or apply by calling 1-800-SAFELINK or visiting www.SafeLink.com.

PHARMACOLOGIC THERAPY

According to the U.S. Public Health Service’s clinical practice guideline Treating Tobacco Use and Dependence: 2008 Update, several effective medications are available for tobacco dependence and clinicians should encourage their use by clients who are attempting to quit—except when medically contraindicated or with special populations for which there is insufficient evidence of effectiveness (i.e., pregnant women, smokeless tobacco users, light smokers, and adolescents).

Seven U.S. Food and Drug Administration-approved medications—five nicotine and two non-nicotine—reliably increase long-term smoking abstinence rates:

- Nicotine gum
- Nicotine inhaler
- Nicotine lozenge
- Nicotine nasal spray
- Nicotine patch
- Bupropion (Zyban®)
- Varenicline (Chantix®)

NRTs are used to relieve withdrawal symptoms, and an added benefit is that these nicotine forms have little abuse potential since they do not produce the pleasurable effects of tobacco products—nor do they contain the carcinogens and other toxins associated with tobacco smoke. Despite the proven benefits of these medications, however, only 17 percent of all smokers utilize pharmacotherapy for tobacco dependence annually.

Clinicians should consider the use of certain combinations of medications identified as effective. University of Wisconsin investigators undertook a trial to assess the relative efficacies of five smoking cessation pharmacotherapy interventions using placebo-controlled, head-to-head comparisons. The nicotine patch plus lozenge produced the greatest benefit relative to placebo for smoking cessation.

While most smoking intervention programs are short-term, lasting one to three months, within six months 75–80 percent of those trying to quit relapse. Expanding the length of treatment beyond this typical duration can result in quit rates as high as 50 percent annually. Zevin recommends that HCH providers remember that it is the mode of delivery that is harmful, not the nicotine. “Patients can be on nicotine replacement indefinitely, and most NRT will be. Using NRT for long-term maintenance is being researched, and I do it for patients who are chronic relapers.”

“Prescribing medications—getting the appropriate medication in appropriate doses—is part of our program’s success,” Zevin continues. “Many heavy smokers (> 20 cigarettes/day) need two nicotine patches; it takes one 21 mg nicotine patch for average one-pack-a-day smokers. Homeless patients may smoke more heavily, smoking more of the cigarette and smoking more unfiltered cigarettes, thus getting more nicotine. It’s not unusual to start patients with two patches, and some need three. For very heavy smokers, it’s safe and effective to prescribe at that dose.”

According to PHS clinical guidelines, “Counseling and medication are effective when used by themselves for treating tobacco dependence. The combination of counseling and medication, however, is more effective than either alone. Thus, clinicians should encourage all individuals making a quit attempt to use both counseling and medication.”

SPECIAL POPULATIONS

Psychiatric patients. According to the National Institute on Drug Abuse, people with mental illnesses are about twice as likely to smoke...
as others, and this tobacco-smoking pattern highlights the noticeable relationship between mental illness and addiction. For example, combining bupropion for nicotine addiction with smoking cessation treatment can curb smoking by patients with schizophrenia, and controlling symptoms of schizophrenia helps reduce smoking intensity and nicotine addiction. Although the reasons why addiction and other mental disorders coincide so frequently are not fully understood, epidemiological research suggests that each can contribute to the development of the other.6

Developed by the Behavioral Health and Wellness Program at University of Colorado Denver, the comprehensive Tobacco Cessation Toolkit for Mental Health Providers17 covers smoking cessation treatment for persons with mental illness, assessment and intervention planning, and relapse prevention. The toolkit features best practices, a literature review, fact sheets for providers and patients, and many national resources.

Veterans. Veterans often experience long-term health consequences after their service, suffering high rates of homelessness and mental illness compared to the population as a whole, and it is estimated that over 250,000 veterans are homeless, constituting one-third of the homeless population. From WWI until 1972, cigarettes were included as part of soldiers’ military rations, resulting in tobacco addiction among thousands of soldiers. Consequently, veterans constitute a substantial market for tobacco companies, which have maintained close relationships with veterans’ groups for decades.3

According to an expert panel convened by the Break Free Alliance, veterans are of special concern because few cessation programs exist that are tailored for veterans recently returning from war, and recommends that the Veterans Administration integrate cessation services into its Stand Down program, which is designed to provide services to homeless veterans.18

Youth. It is estimated 1.6 million youth between 12–17 years of age experience homelessness in a given year,23 and tobacco use is a valid pediatric concern. Despite partial bans on some forms of advertisement, the tobacco industry continues to target vulnerable populations including youth.1 Researchers estimate that about 4,000 youth ages 12–17 years smoke their first cigarette each day, and that about 1,200 children and adolescents become daily cigarette smokers. According to the 2000 National Youth Tobacco Survey, however, only a third of adolescents who visited a physician or dentist reported receiving counseling about the risks of tobacco use. Youth who smoke underestimate the addictive potential of nicotine, and are more likely than nonsmokers to think that they can quit at any time. Additional research is needed to study the effectiveness of counseling interventions to motivate youth to stop using tobacco, as well as the safety and effectiveness of tobacco use medications.21

CONCLUSION

Although the story of tobacco control efforts during the last five decades is one of significant progress and promise, smoking prevalence remains discouragingly high among people experiencing homelessness. HCH clinicians already understand the tragic consequences of tobacco use and nicotine addiction, and are urged to incorporate the effective treatments described in this issue into their practices.

Table 4. The 5-A Behavioral Counseling Framework

Regardless of the client’s stage of readiness for a cessation attempt, clinicians are advised to use the 5 As at every client visit
1. Ask about tobacco use at every visit and document status
2. Advise every tobacco user to quit through clear, strong & personalized messages; advise in a nonjudgmental manner
3. Assess willingness to quit, and assess past quit attempts; determine where client is in terms of the readiness to change model
4. Assist to quit: help the client with a quit plan and recommend NRT or other medication in combination with counseling
5. Arrange follow-up and support

Agencies without tobacco cessation services readily available should use the 2 As + R Model: Ask & Advise, then Refer to available community services

Source: Smoking Cessation for Persons with Mental Illness: A Toolkit for Mental Health Providers, 200917

Have Your Say: National Survey on Tobacco Prevention at Homeless Service Agencies

The HCH Clinicians’ Network is collaborating with the Break Free Alliance—a national network dedicated to reducing the burden of tobacco use among lower-income people—on a tobacco prevention survey. “The intent is to examine clinicians’ approaches to smoking cessation with homeless clients,” explains Jill A. Jarvie, MSN, CNS, RN, stroke coordinator/clinical nurse specialist with Kaiser Foundation Hospital in San Rafael, California, and the Network’s representative with the Alliance. “We want to assess how clinicians prioritize tobacco use and nicotine addiction as well as the level of resources available to address these issues.

“We’re particularly interested in hearing from Network members because they are representative of clinicians working in homeless health care. We also hope to learn if clinicians aren’t addressing tobacco use, why aren’t they?” Jarvie says that the survey should be sent via email in the coming weeks, and invites clinicians to participate in this research.

REFERENCES


Websites accessed August 2010.

Healing Hands

Healing Hands is published by the National Health Care for the Homeless Council | www.nhchc.org

Brenda Proffitt, MHA, writer | John Lozier, MSSW, editor

HCH Clinicians’ Network Communications Committee: Bob Donovan, MD (Chair); Brian Colangelo, LCSW; Katy Kelleghan; Michelle Nance, RN, NP; Rachel Rodriguez-Marzec, MS, FNP-C, PMHNP-C

Disclaimer: The Health Resources & Services Administration supports the development and distribution of Healing Hands. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of HRSA/BPHC.